

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE February 2003		
BUDGET ACTIVITY 06 - RDT&E Management Support					PE NUMBER AND TITLE 1001004F International Activities					PROJECT 4645	
COST (\$ in Thousands)		FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
4645	International Cooperative Research & Development	3,574	3,772	3,867	3,955	4,037	4,107	4,166	4,221	Continuing	TBD
Quantity of RDT&E Articles		0	0	0	0	0	0	0	0	0	0

(U) **A. Mission Description**

The mission of this program is to gain access to our Allies' best defense technologies, eliminate costly duplication of research and development (R&D) efforts, accelerate availability of defense systems, and to deploy and sustain common or interoperable USAF and Allied equipment through international cooperative research and development (ICR&D).

The USAF is party to multiple international cooperative agreements to solve common US and Allied military scientific and technological problems and to develop materiel solutions to harmonize coalition requirements. This program funds the USAF to support, develop, process, negotiate, implement, and manage these international cooperative agreements and projects in compliance with statutory reporting provisions and exacting legal statutes, fiscal constraints, technology transfer controls, intellectual property rights, third party transfer provisions, quid-pro-quo criteria, industrial base factors, and political-military interests. Included in this budget are domestic and international technology assessment teams; specialized working groups; long-term technology project (LTTP) developments; support for cooperative opportunity assessments; developing, processing, negotiating and managing international agreements; oversight of ICR&D projects; overseas R&D liaison and coordination offices; bilateral and multilateral staff talks; Engineering and Scientist Exchange Program (ESEP); and Administrative and Professional Exchange Program (APEP). Funds USAF participation in the NATO Air Force Armaments Group (NAFAG) and NATO Research and Technology Organization (RTO).

(U) **FY 2002 (\$ in Thousands)**

(U) \$100 NC3A - Funded the US R&D Coordination Office and administrative support for the assigned US Engineering and Technical professionals and cooperative Research and Development activities assigned to the NC3A.

(U) \$200 ESEP/APEP - Funded the USAF execution and the management oversight of ESEP and APEP agreements. Funded eight field level military and civilian from AFMC Facilities, Product Centers, Test Centers, Logistic Centers, and the Academy for two year tours at selected European and Asian government laboratories or other institutions. 3 ESEP agreements are under negotiations. 1 APEP agreement is under negotiations.

(U) \$1,999 ICR&D - Funded USAF overseas R&D liaison offices. Funded management support and oversight of International Affairs Armaments Cooperation Division (SAF/IAPQ), AFMC, FCT and NATO Cooperative R&D Program. Funded USAF participation at the NATO Four-Power Forum, NAFAG, and its subgroups to promote NATO harmonization of requirements, standardization, and new cooperative R&D programs.

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(U) <u>A. Mission Description Continued</u>		
(U) <u>FY 2002 (\$ in Thousands) Continued</u>		
	Funded USAF participation at the US-Japan Systems and Technology Forum and Defense Cooperation Committee Meetings with Singapore and South Korea. Funded expanded technology acquisition contracts and follow-on cooperative opportunities with Russia, Ukraine, and Eastern Europe. Partially funded technical assessments and international agreements negotiation start-up costs associated with promising cooperative R&D programs. Funded upgrades to the DoD International Agreements Management System. Funded phase 1 development of the USAF International Activities Database (IADB). Funded negotiation and support costs associated with the NATO AWACS Board of Directors. Funded ICOG efforts to harmonize Four-power requirements and initiate agreements to explore these opportunities.	
(U) \$400	Armaments Cooperation - Funded the USAF to process the rapidly increasing number of proposals for ICR&D Agreements. Work continued on agreements developed, but not signed, during FY01 and work will be initiated in the following areas: Asia: Unmanned Aerial Vehicles, Early Warning Systems, Theater Missile Defense, Satellites, Command, Control, Communication, Computer, Information and Intelligence, Effects on Global Positioning Systems; Europe: Distributed Simulation Technology, Unmanned Aerial Vehicles, Aging Aircraft, Programmable Integrated Ordinance Suite, Agent Defeat Weapon, Joint Targeting Tool, Satellites, Space, Environmental Issues; Middle East: Intelligence, Sensors, Monitoring of Chemical/Biological Warfare; Central and South America: Monitoring of Chemical/Biological Warfare, Satellites, Space, Environmental Issues.	
(U) \$175	NATO RTO - Funded USAF participation in the NATO RTO activities. The FY02 program of work will consist of studies, technical exchanges, and reports in the following areas: (1) Vehicle and Platform, (2) Propulsion and Power, (3) Human Protection in Adverse Environments, (4) Operational Medicine, (5) Information Warfare and Assurance, (6) Information and Knowledge, (7) Modeling and Simulation, (8) Systems Architecture/ Mechanization, (9) Mission Management, (10) Phenomenology, and (11) Sensors, Electronics, Processing and Components. Continues Partnership for Peace initiative through the R&T outreach program with scientists and engineers from the former Soviet Union and Central Europe.	
(U) \$700	AFMC - Funded AFMC activities to identify, assess, develop, and report International Cooperative Agreements as required by statute for new and existing projects. Supported AFMC activities for the USAF NATO Cooperative R&D Programs. Funds USAF participation in panel meetings of TTCP, Air Standardization Coordinating Committee, NATO Working Groups, and other NATO forums. Funded periodic bilateral/multilateral meetings to define new areas of possible cooperation and exploratory visits to France, Germany, Israel, United Kingdom, Canada, and other countries on new technology exchange projects. Funded project engineers at centers and AFRL for identifying, creating and staffing new international cooperative agreements. Funded MAJCOM staff to support and promote ICR&D throughout AFMC. Funded the USAF support of the DoD Technology Booth at International Airshows. Funds small contracts in support of technology initiatives.	
(U) \$3,574	Total	
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<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2003 (\$ in Thousands)</u></p> <p>(U) \$100 NC3A - Funds the US R&D Coordination Office and administrative support for the assigned US Engineering and Technical professionals and cooperative Research and Development activities assigned to the NC3A.</p> <p>(U) \$200 ESEP/APEP - Funds the USAF execution and the management oversight of ESEP and APEP agreements. Funds approximately eight field level military and civilian from AFMC Facilities, Product Centers, Test Centers, Logistic Centers, and the Academy for two year tours at selected European and Asian government laboratories or other institutions. ESEP agreements will be signed with 14 countries and under negotiation with 6 other countries. 1 APEP agreement will be signed, 2 other countries agreements are under negotiation.</p> <p>(U) \$2,552 ICR&D - Funds USAF overseas R&D liaison offices. Funds management support and oversight of International Affairs Armaments Cooperation Division (SAF/IAPQ), AFMC, FCT and NATO Cooperative R&D Program. Funds USAF participation at the NATO Four-Power Forum, NAFAG, and its subgroups to promote NATO harmonization of requirements, standardization, and new cooperative R&D programs. Funds USAF participation at the US-Japan Systems and Technology Forum and Defense Cooperation Committee Meetings with Singapore and South Korea. Partially funds technical assessments and international agreements negotiation start-up costs associated with promising cooperative R&D programs. Funds upgrades to the DoD International Agreements Management System. Funds phase 2 development of the USAF IADB. Funds negotiation and support costs associated with the NATO AWACS Board of Directors. Funds ICOG efforts to harmonize Four-power requirements and initiate agreements to explore these opportunities. Funds AFMC activities to identify, assess, develop, and report International Cooperative Agreements as required by statute for new and existing projects. Supports AFMC activities for the International Cooperative R&D Program. Funds AFMC participation in panel meetings of TTCP, Air Standardization Coordinating Committee, NATO MAS and NATO CNAD Working Groups. Funds periodic bilateral/multilateral meetings to define new areas of possible cooperation and exploratory visits to France, Germany, Israel, United Kingdom, Canada, and other countries on new technology exchange projects. Funds the efforts of project engineers and scientists at AFMC subordinate units to identify, create, and staff new international cooperative agreements.</p> <p>(U) \$770 Armaments Cooperation - Funds the USAF's ability to develop and negotiate the increasing number of proposals for ICR&D bi-lateral and multi-lateral Agreements with key allies. Work will continue on agreements developed, but not signed, during FY02 and work will be initiated in the areas of: Reconnaissance and Surveillance; Global Positioning Satellites; Space and Materials; Ground Based Relay Stations; Next Generation Fighter Aircraft (JSF), Global Hawk, Unmanned Combat Aerial Vehicles; Munitions; Airborne Radar; Early Warning Systems; Counter Air Weapons; Electronics; Command, Control, Communications, Computer, Intelligence, Reconnaissance and Surveillance; Chemical/Biological Warfare Protection; Distributed Simulation Technology; Laser Technology ; Aging Aircraft;; Environmental Issues; Human Factors; Propulsion; Aircraft Structural Integrity; Wind Tunnel Design; Materials; Environmental Analysis.</p> <p>(U) \$150 NATO RTO - Funds USAF participation in the NATO RTO activities. The FY03 program of work will consist of studies, technical exchanges, and reports in the following areas: (1) Vehicle and Platform, (2) Propulsion and Power, (3) Human Protection in Adverse Environments, (4)</p>		
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BUDGET ACTIVITY 06 - RDT&E Management Support	PE NUMBER AND TITLE 1001004F International Activities	PROJECT 4645
(U) <u>A. Mission Description Continued</u>		
(U) <u>FY 2003 (\$ in Thousands) Continued</u>		
	Operational Medicine, (5) Information Warfare and Assurance, (6) Information and Knowledge, (7) Modeling and Simulation, (8) Systems Architecture/ Mechanization, (9) Mission Management, (10) Phenomenology, and (11) Sensors, Electronics, Processing and Components. Continues Partnership for Peace initiative through the R&T outreach program with scientists and engineers from the former Soviet Union and Central Europe.	
(U) \$3,772	Total	
(U) <u>FY 2004 (\$ in Thousands)</u>		
(U) \$100	NC3A - Funds the US R&D Coordination Office and administrative support for the assigned US Engineering and Technical professionals and cooperative Research and Development activities assigned to the NC3A.	
(U) \$200	ESEP/APEP - Funds the USAF execution and the management oversight of ESEP and APEP agreements. Funds approximately eight field level military and civilian from AFMC Facilities, Product Centers, Test Centers, Logistic Centers, and the Academy for two year tours at selected European and Asian government laboratories or other institutions. ESEP agreements will be signed with 14 countries and under negotiation with 6 other countries. 2 APEP agreements will be signed, 1 other agreements will be in negotiation.	
(U) \$2,617	ICR&D - Funds USAF overseas R&D liaison offices. Funds management support and oversight of International Affairs Armaments Cooperation Division (SAF/IAPQ), AFMC, FCT and NATO Cooperative R&D Program. Funds USAF participation at the NATO Four-Power Forum, NAFAG, and its subgroups to promote NATO harmonization of requirements, standardization, and new cooperative R&D programs. Funds USAF participation at the US-Japan Systems and Technology Forum and Defense Cooperation Committee Meetings with Singapore and South Korea. Partially funds technical assessments and international agreements negotiation start-up costs associated with promising cooperative R&D programs. Funds upgrades to the DoD International Agreements Management System. Funds phase 2 development of the USAF IADB. Funds negotiation and support costs associated with the NATO AWACS Board of Directors. Funds ICOG efforts to harmonize Four-power requirements and initiate agreements to explore these opportunities. Funds AFMC activities to identify, assess, develop, and report International Cooperative Agreements as required by statute for new and existing projects. Supports AFMC activities for the International Cooperative R&D Program. Funds AFMC participation in panel meetings of TTCP, Air Standardization Coordinating Committee, NATO MAS and NATO CNAD Working Groups. Funds periodic bilateral/multilateral meetings to define new areas of possible cooperation and exploratory visits to France, Germany, Israel, United Kingdom, Canada, and other countries on new technology exchange projects. Funds the efforts of project engineers and scientists at AFMC subordinate units to identify, create, and staff new international cooperative agreements.	
(U) \$800	Armaments Cooperation - Funds the USAF's ability to develop and negotiate the increasing number of proposals for ICR&D bi-lateral and multi-lateral Agreements with key allies. Work will continue on agreements developed, but not signed, during FY03 and work will be initiated	
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<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2004 (\$ in Thousands) Continued</u></p> <p style="padding-left: 40px;">in the areas of: Reconnaissance and Surveillance; Global Positioning Satellites; Space and Materials; Ground Based Relay Stations; Next Generation Fighter Aircraft (JSF), Global Hawk, Unmanned Combat Aerial Vehicles; Munitions; Airborne Radar; Early Warning Systems; Counter Air Weapons; Electronics; Command, Control, Communications, Computer, Intelligence, Reconnaissance and Surveillance; Chemical/Biological Warfare Protection; Distributed Simulation Technology; Laser Technology ; Aging Aircraft;; Environmental Issues; Human Factors; Propulsion; Aircraft Structural Integrity; Wind Tunnel Design; Materials; Environmental Analysis.</p> <p>(U) \$150 NATO RTO - Funds USAF participation in the NATO RTO activities. The FY04 program of work will consist of studies, technical exchanges, and reports in the following areas: (1) Vehicle and Platform, (2) Propulsion and Power, (3) Human Protection in Adverse Environments, (4) Operational Medicine, (5) Information Warfare and Assurance, (6) Information and Knowledge, (7) Modeling and Simulation, (8) Systems Architecture/ Mechanization, (9) Mission Management, (10) Phenomenology, and (11) Sensors, Electronics, Processing and Components. Continues Partnership for Peace initiative through the R&T outreach program with scientists and engineers from the former Soviet Union and Central Europe.</p> <p>(U) \$3,867 Total</p> <p>(U) <u>B. Budget Activity Justification</u></p> <p style="padding-left: 40px;">This program is in Budget Activity 6, Management and Support, because it provides for general R&D Management support for all aspects of ICR&D activities in the USAF.</p> <p>(U) <u>C. Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 55%;"></th> <th style="text-align: center; width: 15%;"><u>FY 2002</u></th> <th style="text-align: center; width: 15%;"><u>FY 2003</u></th> <th style="text-align: center; width: 15%;"><u>FY 2004</u></th> <th style="text-align: center; width: 10%;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget</td> <td style="text-align: center;">3,592</td> <td style="text-align: center;">3,878</td> <td style="text-align: center;">3,945</td> <td></td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">3,592</td> <td style="text-align: center;">3,878</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">a. Congressional/General Reductions</td> <td style="text-align: center;">-18</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">b. Small Business Innovative Research</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td style="text-align: center;">-42</td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">d. Below Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">e. Rescissions</td> <td></td> <td style="text-align: center;">-64</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2003 PBR</td> <td></td> <td></td> <td style="text-align: center;">-78</td> <td></td> </tr> <tr> <td>(U) Current Budget Submit/FY 2004 PBR</td> <td style="text-align: center;">3,574</td> <td style="text-align: center;">3,772</td> <td style="text-align: center;">3,867</td> <td style="text-align: center;">TBD</td> </tr> </tbody> </table>				<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>	(U) Previous President's Budget	3,592	3,878	3,945		(U) Appropriated Value	3,592	3,878			(U) Adjustments to Appropriated Value					a. Congressional/General Reductions	-18				b. Small Business Innovative Research					c. Omnibus or Other Above Threshold Reprogram		-42			d. Below Threshold Reprogram					e. Rescissions		-64			(U) Adjustments to Budget Years Since FY 2003 PBR			-78		(U) Current Budget Submit/FY 2004 PBR	3,574	3,772	3,867	TBD
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BUDGET ACTIVITY

06 - RDT&E Management Support

PE NUMBER AND TITLE

1001004F International Activities

PROJECT

4645(U) **C. Program Change Summary (\$ in Thousands) Continued**(U) **Significant Program Changes:**

N/A

(U) **D. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	

(U) N/A

(U) **E. Acquisition Strategy**

This program element is the only source of USAF funds to identify and initiate opportunities for international armaments cooperation to (a) deploy and support common or interoperable equipment with our allies; (b) leverage USAF resources with our allies through cost sharing and economies of scale; and (c) exploit the best US and allied technologies for equipping coalition forces. We obtain these benefits only after international cooperative opportunities are identified, explored, developed, assessed and after the international agreements are negotiated and concluded. This PE provides funds to execute up-front armaments cooperation responsibilities, rationalize cooperative opportunities, assess allied technologies, and generate sound, cost-effective cooperative programs between the USAF and our international partners. Once these initiatives and programs are started as international efforts they are transferred to the appropriate technology or systems program office and are funded in their own program elements.

(U) **F. Schedule Profile**

	<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) -NATO C3 Agency Program Review				*				X				
(U) -NATO Research & Technology Board	*		*		*		X					
(U) -Bilateral Technology R&D Projects MOUs	*	*	*	*	*	X	X	X				
(U) -Cooperative R&D Projects	*	*	*	*	*	X	X	X	X	X	X	X
(U) -FCT Prioritization Board		*				X				X		
(U) -NATO Cooperative R&D Prioritization Board			*				X				X	
(U) -R&D Loans of Defense Equipment	*	*	*	*	*	X	X	X	X	X	X	X
(U) -Systems & Technology Forum (JA)	*		*		*		X		X		X	
(U) -Other Bilateral forums	*	*	*	*	*	X	X	X	X	X	X	X
(U) -Data/Information Exchange Annexes	*	*	*	*	*	X	X	X	X	X	X	X

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(U) F. Schedule Profile Continued

	<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) -Engineer and Scientist Exchanges	*	*	*	*	*	X	X	X	X	X	X	X
(U) -Administrative and Professional Exchanges				*				X			X	
(U) -NATO Air Force Armaments Group	*		*		*		X		X		X	
(U) -Four-Power Air Senior National Representatives	*		*		*		X		X		X	
(U) -Four-Power Long-Term Technology Working Group		*		*		X		X		X		X